

Intrathoracic pressure

- fixed for arm & sh. movements
- deep inspiration - fixed closed glottis
- fixed expiratory muscles & abd.

Burst + pressure

- veins don't empty into burst
- venous circ. held back
- arteries poorly supplied
- coronary artery empty

After pressure

- lungs release CO₂
- blood rushes into burst - dilation & it expands

Normal

- i) Effort - empties coronary artery
deficient O₂ supply
- ii) After effort - dilation (expansion)
& right heart.

Burst failure - fatigue

Effort - loss in local strength & skill during exercise - beginning heart failure.

- 1) pulse thready & irregular
- 2) radial artery stretched less
- 3) blood leaves face - gas to lungs
- 4) inspiration deep - expiration jerky

* red.

Circulation restored - lungs relieved of pressure & congestion - breathlessness disappears.

Exercises of endurance

- 1) Heart increases during activity
- 2) Heart decreases after
- 3) Normally after contraction blood remains in heart.

spread out after muscular activity

Training is rhythmic repetition

Fatigued muscle stretched is bled.

Increase

Burst - increase no. of contractions
" amt of blood sent out
increased blood pressure in ht

Hypertrophy - increase in the mass of
the heart wall - thickening

Dilation - stretched - increased cardiac
chambers

Small heart - T. B. possible

High blood pressure

- large heart - small arteries
- beats slowly + weakly

Exercises of speed - when young

- endurance in old

Free play) increases heart, lung + metabolism
Walking) capacity

- more than 1 hr. P.E.

Chapter 9.

Influence Upon Metabolism

Metabolism continuous

- body has an even temperature.
- body replaces used cells.
- energy produced = energy introduced
greater in growth

Small calorie - 1 cc. 1°C .

Large " - 1000 c.c. 1°C .

- glycogen - fuel.
- protein - muscle contraction.
- fat -
 - 1) storage
 - 2) fills space.

Metabolism - depends on

Protein 1) amt. of protein present.

2) surface area - contact with blood.

- $\text{O}_2 + \text{combustion}$.

Fat + glycogen - no effect on metabolism

Muscle increases metabolism.

Fat decreases "

Energy consumption depends on

1) metabolism at rest.

2) work performed.

Basal metabolism maintains

- body temp.

- heart, lung, gland activities.

Energy increases on work.

1) respiration | increase
heart

2) heart rhythm (training of muscles).

Endurance exercises.

- great amt. of work
- least amt. of exertion

Speed - great amt. of work - short time.

Strength. - muscles work in groups.

P. E. increases metabolism by exercises of speed & endurance.

Chapter 10.

Value of Different Exercises.

Two types of movements.

1) Parts to go to a whole.

- general exercise of strength.
- local exercise of strength.
- exercises of skill.

2) Rhythmic succession of same movement continued for an indefinite period.

- exercises of endurance & speed.

General strength.

- Big exertion of large muscle groups with act of pressure.

- Stimulate breathing & heart & metabolism.

* - Wrestling & weight-lifting.

* - Bed for heart & lungs. P. 176.

Local strength & skill.

- Exercise & strengthen small muscle groups
- develop maximum strength.

Skill.

- Improve co-ordination between brain & muscles.
- Develops will-power.

True -

- Simple movements repeated often.
- In standing, lying, sitting.
- Co-ordination.

Affirmative -

- Develops strength & skill & respiration

Static - long muscle contractions.

Rhythmic - short " "

- Bars & ropes.

Thrusting & throwing -

- Develops muscle control.
- Dynamic.

Benefits

- Heart develops.
- Breathing improves.
- Muscles develop.
- Co-ordination of nervous system improves.
 - control of body by will.

Speed & endurance -

Walking, marching, mountain climbing, running, dancing, swimming, rowing, skating, skiing, bicycling.

Nervous system -

Relaxed & receptive of brain & nerve.

Attention & alertness & memory exercises.

Chapter 11.

Need for Exercise.

Pre-school.

Saint, single apparatus, open air

Free play.

6-9 yrs.

Increase activity of organs.

Decrease school effects.

Stimulate nervous system.

Free exercises, balance, rhythms.

9-12 yrs.

Quickness, skill, alertness games.

P.E. 1 hr. daily. 1st. weekly.

Posture.

12-15 yrs.

Stimulate heart & lungs.

15-16 yrs. Speed exercises.

17-20 yrs.

40 yrs. Speed gone

Arteries harden

Heart weakens

Chapter 12.

Athletic Types.

Leptosome.

Pyknics.

Well-proportioned (middle).

Football.

Tall.

Short & sinewy.

Pyknics - wrestlers, boxers, gymnasts.
- courage, heavy, but not in weight or
termination of exercise.

Sleptics - sprinters, fencers.
- nervous, thin.

Type depends on

- musculature.
- ability of heart.
- chemical changes of body.
- temperament & character.

Sprinters) - tall & thin - long) - short.
Jumpers) - distance

Thomases - heavy & tall

Wt. lifters - heavy & short.

All round - large, broad-shouldered,
narrow hips.

Hygiene

Miss Wardley

Health Habits

Sleep - 9 hr.

Rest - 15 minutes a day, before a meal.

Colds - prevention

Keep away from people with colds +
public places.

Pandemic - world-wide

Get plenty of rest.

Drink plenty of liquids (fruit juices +
cod-liver oil.)

Fresh fruit, not too many starches + sugars.

Don't get your feet wet.

Keep out of drafts + don't get chilled.

Cold baths in morning.

Don't change clothing suddenly.

Symptoms

Tired + aching + chilly.

Sneeze, sore throat, great thirst.

Dry nose + throat.

Treatment

Drink lots of liquid - hot fruit juices + water.

+ soda - 1 tsp. to 1 glass water.

+ 2-3 times a day.

- + aspirins a day.

Gargle - 1 tsp. salt and soda to 1 glass. (5 times)

Hot compresses - 15 min. at a time.

Wear woolen underwear.

Hot mustard plasters.

Laetative.

Temperature - Stay in bed 24 hr. after normal.

IN CANADA

Don't spread cold.

Cold serums.

Careful of coughing + sneezing.

Go to bed with hot water bottle + hot bath.

Be brave.

TIME CHART	OCT. 14 THURSDAY	OCT. 15 FRIDAY	OCT. 16 SATURDAY	OCT. 16 SUNDAY	OCT. 16 MONDAY	OCT. 18 TUESDAY	OCT. 19 WEDNESDAY
	1.30 - Sat up.	7.35 Sat up.	9.20 Sat up.	9.15 - Sat up.	7.40 Sat up.	7.25 Sat up.	7.30 Sat up.
	7.50 - 7.50 - Washed & dressed.	7.35 - 7.45 - Washed & dressed.	9.20 - 10.30 - Washed up & dressed.	9.15 - 9.15 - Washed dressed.	7.40 - 7.50 - Washed & dressed.	7.25 - 7.35 - Washed, dressed.	7.30 - 7.55 - Washed & dressed.
	7.50 - 8.10 - Breakfast.	7.45 - 8.15 - Breakfast.	10.30 - Drove to Hamilton.	9.25 - 9.55 - Breakfast.	7.50 - 8.20 - Breakfast.	7.35 - 8.20 - Breakfast.	7.30 - 8.55 - Washed & dressed.
	8.10 - 8.30 - Washed up.	8.15 - 8.35 - Washed up.	10.30 - 11.00 - Washed up.	9.55 - 10.10 - Breakfast.	8.20 - 8.35 - Breakfast.	8.20 - 8.30 - Breakfast.	7.55 - 8.20 - Breakfast.
	8.30 - 8.45 - Went to school.	8.35 - 8.45 - Went to school.	10.30 - 11.00 - Washed & changed.	10.10 - 10.15 - Washed & changed.	8.35 - 8.40 - Went to school.	8.30 - 8.45 - Went to school.	8.30 - 8.40 - Went to school.
	8.45 - 8.55 - Dressed	8.45 - 8.50 - Dressed	10.15 - 10.45 - Washed & changed.	8.40 - 9.10 - Studied	8.45 - 9.00 - Studied	8.40 - 9.10 - Studied	8.40 - 9.10 - Studied
	8.55 - 9.00 - Went to class.	8.55 - 9.00 - Went to class.	10.45 - 11.00 - Washed & changed.	9.10 - 12.40 - Studied	8.45 - 9.00 - Classes.	8.45 - 9.00 - Classes.	8.45 - 9.00 - Classes.
	9.00 - 12.40 - Classes.	9.00 - 12.40 - Classes.	12.40 - 12.50 - Talked	12.40 - 12.40 - Classes.	12.40 - 12.45 - Read letter.	12.40 - 12.45 - Classes.	11.00 - 12.00 - Sat in park.
	12.40 - 12.55 - Meeting	12.40 - 12.55 - Meeting	12.50 - 12.55 - Went upstairs.	12.45 - 1.00 - Changed.	12.40 - 12.55 - Went home.	12.00 - 12.15 - Went home.	12.00 - 12.15 - Went home.
	12.55 - 1.05 - Dressed	1.05 - 1.20 - Went home.					
LUNCH	1.20 - 1.50 - Sat	1.20 - 1.15 - Sat	1.30 - 2.10 - Visited	1.00 - 1.50 - Sat	1.20 - 1.15 - Sat	1.00 - 1.20 - Talked.	1.20 - 1.15 - Talked.
	1.30 - 2.20 - Washed + washed up	1.30 - 2.10 - Studied + talked	2.10 - 3.45 - Washed & changed.	1.50 - 2.10 - Sat	1.15 - 1.25 - Sat	1.25 - 1.45 - Talked & talked.	1.15 - 1.35 - Talked.
	2.20 - 4.30 - Studied	2.10 - 4.25 - Close + exam.	3.45 - 6.00 - Drove around + then home.	2.10 - 2.20 - Washed & changed.	1.25 - 2.05 - Studied	1.35 - 2.30 - Studied	1.35 - 2.30 - Studied
	4.30 - 5.45 - Read	4.30 - 5.45 - Close + exam.	4.20 - 4.50 - Washed + talked	2.10 - 4.10 - Studied	2.10 - 3.10 - Classes	2.10 - 3.10 - Classes	2.10 - 3.10 - Classes
	5.45 - 6.00 - Phoned	4.30 - 5.30 - Drove	4.30 - 5.30 - Washed up.	4.10 - 5.00 - Talked & changed.	3.10 - 3.20 - Changed.	3.10 - 4.15 - Talked	3.10 - 4.15 - Talked
	6.00 - 6.15 - Bathed & changed	4.30 - 5.30 - Drove	5.30 - 5.45 - Sat.	5.00 - 6.15 - Talked & changed.	3.20 - 4.15 - Talked	4.15 - 4.30 - None	4.15 - 4.30 - None
DINNER	6.15 - 6.50 - Coffee	6.15 - 6.45 - Phoned & changed.	6.15 - 6.45 - Drove.	6.15 - 10.00 - Talked + wrote letters.	12.45 - 1.15 - Sat	6.15 - 6.45 - Talked & talked.	6.45 - 7.00 - Coffee
	6.00 - 7.10 - Coffee	6.45 - 7.00 - Drove.	7.10 - 7.20 - Sat.	10.00 - 10.30 - Talked & changed.	1.15 - 1.25 - Sat	7.15 - 7.30 - Changed & talked.	7.00 - 7.30 - Sat
	7.10 - 7.25 - Sat	7.00 - 8.05 - Dinner	7.25 - 7.30 - Changed.	10.30 - 12.00 - Talked and studied.	2.10 - 2.20 - Studied	7.25 - 7.30 - Changed	7.00 - 7.25 - Sat
	7.45 - 7.50 - Changed clothes	7.25 - 8.15 - Drove	7.30 - 11.15 - Talked.	10.30 - 12.00 - Talked and studied.	2.20 - 4.45 - Studied	7.35 - 8.50 - Ate.	7.30 - 8.50 - Studied
	7.30 - 9.30 - Studied	7.15 - 11.30 - Movie	11.15 - 11.45 - Talked.	10.30 - 12.00 - Talked.	2.30 - 4.00 - Changed.	8.50 - 10.15 - Bath	7.30 - 8.45 - Talked
	9.20 - 9.45 - Ate	11.30 - 11.45 - Drove	11.45 - 12.00 - Washed & changed.	10.30 - 12.00 - Talked.	4.45 - 10.00 - Changed.	10.15 - 10.45 - Studied	7.45 - 11.30 - Talked
	9.45 - 10.30 + talked	11.45 - 12.00 - Washed & changed.	12.00 - Bed.	10.30 - 12.00 - Talked.	4.50 - 10.30 - Talked.	10.45 - Bed.	11.30 - Talked
	10.30 - Bed		11.30 - Bed.	12.00 - Bed.	5.00 - 6.45 - Talked & changed.		



The **Margaret Eaton School Digital Collection** is a not-for-profit resource created in 2014-2015 to assist scholars, researchers, educators, and students to discover the Margaret Eaton School archives housed in the Peter Turkstra Library at Redeemer University College. Copyright of the digital images is the property of Redeemer University College, Ancaster, Canada and the images may not be copied or emailed to multiple sites without the copyright holder's express written permission. However, users may print, download, or email digital images for individual non-commercial use. To learn more about this project or to search the digital collection, go to <http://libguides.redeemer.ca/mes>.